



IFW16

RAW SEQUENCE LISTING

DATE: 11/28/2005

PATENT APPLICATION: US/10/772,124A

TIME: 10:49:30

Input Set : A:\CL2175 Substitute Seq List.18Nov05.txt

Output Set: N:\CRF4\11282005\J772124A.raw

```

3 <110> APPLICANT: E.I. du Pont de Nemours and Co.
4     Fahnestock, Stephen
5     Schultz, Thomas
7 <120> TITLE OF INVENTION: Water Soluble Silk Proteins in Compositions for Skin Care,
Hair
8     Care or Hair Coloring
10 <130> FILE REFERENCE: CL-2175
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/772,124A
C--> 12 <141> CURRENT FILING DATE: 2004-02-04
12 <160> NUMBER OF SEQ ID NOS: 14
14 <170> SOFTWARE: PatentIn version 3.2
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 101
18 <212> TYPE: PRT
19 <213> ORGANISM: Artificial Sequence
21 <220> FEATURE:
22 <223> OTHER INFORMATION: Monomer of spider silk DP-1A analog protein
24 <400> SEQUENCE: 1
26 Gly Ala Gly Arg Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala Ala
27 1           5           10           15
30 Gly Gly Ala Gly Gln Gly Gly Tyr Gly Gly Leu Gly Ser Gln Gly Ala
31           20           25           30
34 Gly Arg Gly Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala
35           35           40           45
38 Ala Ala Gly Gly Ala Gly Gln Gly Gly Leu Gly Ser Gln Gly Ala Gly
39           50           55           60
42 Gln Gly Ala Gly Ala Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln Gly
43 65           70           75           80
46 Gly Tyr Gly Gly Leu Gly Ser Gln Gly Ala Gly Gln Gly Gly Tyr Gly
47           85           90           95
50 Gly Leu Gly Ser Gln
51           100
54 <210> SEQ ID NO: 2
55 <211> LENGTH: 101
56 <212> TYPE: PRT
57 <213> ORGANISM: Artificial Sequence
59 <220> FEATURE:
60 <223> OTHER INFORMATION: Monomer of spider silk DP-1B.9 analog protein
62 <400> SEQUENCE: 2
64 Gly Ala Gly Gln Gly Gly Tyr Gly Gly Leu Gly Ser Gln Gly Ala Gly
65 1           5           10           15
68 Arg Gly Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala Ala
69           20           25           30
72 Ala Gly Gly Ala Gly Gln Gly Gly Leu Gly Ser Gln Gly Ala Gly Gln

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73          35          40          45
76 Gly Ala Gly Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly
77          50          55          60
80 Tyr Gly Gly Leu Gly Ser Gln Gly Ala Gly Arg Gly Gly Gln Gly Ala
81 65          70          75          80
84 Gly Ala Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly Tyr Gly
85          85          90          95
88 Gly Leu Gly Ser Gln
89          100
92 <210> SEQ ID NO: 3
93 <211> LENGTH: 101
94 <212> TYPE: PRT
95 <213> ORGANISM: Artificial Sequence
97 <220> FEATURE:
98 <223> OTHER INFORMATION: Monomer of spider silk DP-1B.16 analog protein
100 <400> SEQUENCE: 3
102 Ser Gln Gly Ala Gly Gln Gly Gly Tyr Gly Gly Leu Gly Ser Gln Gly
103 1          5          10          15
106 Ala Gly Arg Gly Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala
107          20          25          30
110 Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly Leu Gly Ser Gln Gly Ala
111          35          40          45
114 Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln
115          50          55          60
118 Gly Gly Tyr Gly Gly Leu Gly Ser Gln Gly Ala Gly Arg Gly Gly Gln
119 65          70          75          80
122 Gly Ala Gly Ala Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly
123          85          90          95
126 Tyr Gly Gly Leu Gly
127          100
130 <210> SEQ ID NO: 4
131 <211> LENGTH: 119
132 <212> TYPE: PRT
133 <213> ORGANISM: Artificial Sequence
135 <220> FEATURE:
136 <223> OTHER INFORMATION: Monomer of spider silk DP-2A analog protein
138 <400> SEQUENCE: 4
140 Gly Pro Ser Gly Pro Gly Ser Ala Ala Ala Ala Ala Gly Pro Gly
141 1          5          10          15
144 Gln Gln Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Gly Gly
145          20          25          30
148 Tyr Gly Pro Gly Gln Gln Gly Pro Ser Gly Pro Gly Ser Ala Ala Ala
149          35          40          45
152 Ala Ala Ala Ala Ala Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly
153          50          55          60
156 Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Ser Gly Pro Gly Ser
157 65          70          75          80
160 Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly Pro Gly Gly Tyr Gly Pro
161          85          90          95

```

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164 Gly Gln Gln Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Gly
165           100           105           110
168 Gly Tyr Gly Pro Gly Gln Gln
169           115
172 <210> SEQ ID NO: 5
173 <211> LENGTH: 34
174 <212> TYPE: PRT
175 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Consensus repeat sequence representing spider silk analog
protein
179           DP-1
182 <220> FEATURE:
183 <221> NAME/KEY: MISC_FEATURE
184 <222> LOCATION: (11)..(11)
185 <223> OTHER INFORMATION: Xaa = Ser, Gly, or Asn
187 <220> FEATURE:
188 <221> NAME/KEY: MISC_FEATURE
189 <222> LOCATION: (26)..(32)
190 <223> OTHER INFORMATION: The alanine residues at positions 26-32 may optionally be
present
191           or absent.
193 <400> SEQUENCE: 5
W--> 195 Ala Gly Gln Gly Gly Tyr Gly Gly Leu Gly Xaa Gln Gly Ala Gly Arg
196 1           5           10           15
199 Gly Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala Ala
200           20           25           30
203 Gly Gly
207 <210> SEQ ID NO: 6
208 <211> LENGTH: 21
209 <212> TYPE: PRT
210 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: A portion of the consensus repeat sequence representing
spider
214           silk analog protein DP-1
217 <220> FEATURE:
218 <221> NAME/KEY: MISC_FEATURE
219 <222> LOCATION: (13)..(19)
220 <223> OTHER INFORMATION: The alanine residues at positions 13 to 19 may optionally be
221           present or absent.
223 <400> SEQUENCE: 6
225 Ala Gly Arg Gly Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala
226 1           5           10           15
229 Ala Ala Ala Gly Gly
230           20
233 <210> SEQ ID NO: 7
234 <211> LENGTH: 13
235 <212> TYPE: PRT
236 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: One of the repeat sequences representing spider silk analog

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```

240      protein DP-1
243 <220> FEATURE:
244 <221> NAME/KEY: MISC_FEATURE
245 <222> LOCATION: (11)..(11)
246 <223> OTHER INFORMATION: Xaa= Ser, Gly, or Asn
248 <400> SEQUENCE: 7
W--> 250 Ala Gly Gln Gly Gly Tyr Gly Gly Leu Gly Xaa Gln Gly
      251 1          5          10
254 <210> SEQ ID NO: 8
255 <211> LENGTH: 28
256 <212> TYPE: PRT
257 <213> ORGANISM: Artificial Sequence
259 <220> FEATURE:
260 <223> OTHER INFORMATION: One of the repeat sequences representing spider silk analog
261      protein DP-1
264 <220> FEATURE:
265 <221> NAME/KEY: MISC_FEATURE
266 <222> LOCATION: (8)..(8)
267 <223> OTHER INFORMATION: Xaa = Ser, Gly, or Asn
269 <220> FEATURE:
270 <221> NAME/KEY: MISC_FEATURE
271 <222> LOCATION: (20)..(26)
272 <223> OTHER INFORMATION: The alanine residues at positions 20 to 26 may optionally be
273      present or absent.
275 <400> SEQUENCE: 8
W--> 277 Ala Gly Gln Gly Gly Leu Gly Xaa Gln Gly Ala Gly Leu Gly Gly Gln
      278 1          5          10          15
281 Gly Ala Gly Ala Ala Ala Ala Ala Ala Ala Gly Gly
282      20          25
285 <210> SEQ ID NO: 9
286 <211> LENGTH: 47
287 <212> TYPE: PRT
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: Consensus repeat sequence representing spider silk analog
protein
292      DP-2
295 <220> FEATURE:
296 <221> NAME/KEY: MISC_FEATURE
297 <222> LOCATION: (44)..(47)
298 <223> OTHER INFORMATION: The alanine residues at positions 44 to 47 may optionally be
299      present or absent.
301 <400> SEQUENCE: 9
303 Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Gly Gly Tyr Gly
304 1          5          10          15
307 Pro Gly Gln Gln Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro
308      20          25          30
311 Ser Gly Pro Gly Ser Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
312      35          40          45
315 <210> SEQ ID NO: 10

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RAW SEQUENCE LISTING

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TIME: 10:49:30

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Output Set: N:\CRF4\11282005\J772124A.raw

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316 <211> LENGTH: 5
317 <212> TYPE: PRT
318 <213> ORGANISM: Artificial Sequence
320 <220> FEATURE:
321 <223> OTHER INFORMATION: Possible deletion in the consensus repeat sequence
representing
322     spider silk analog protein DP-2
324 <400> SEQUENCE: 10
326 Gly Pro Gly Gly Tyr
327 1           5
330 <210> SEQ ID NO: 11
331 <211> LENGTH: 5
332 <212> TYPE: PRT
333 <213> ORGANISM: Artificial Sequence
335 <220> FEATURE:
336 <223> OTHER INFORMATION: Possible deletion in the consensus repeat sequence
representing
337     spider silk analog protein DP-2
339 <400> SEQUENCE: 11
341 Gly Pro Gly Gln Gln
342 1           5
345 <210> SEQ ID NO: 12
346 <211> LENGTH: 42
347 <212> TYPE: PRT
348 <213> ORGANISM: Artificial Sequence
350 <220> FEATURE:
351 <223> OTHER INFORMATION: One of the repeat sequences representing spider silk analog
352     proein DP-2
355 <220> FEATURE:
356 <221> NAME/KEY: MISC_FEATURE
357 <222> LOCATION: (39)..(42)
358 <223> OTHER INFORMATION: The alanine residues at positions 39 to 42 may optionally be
359     present or absent.
361 <400> SEQUENCE: 12
363 Gly Pro Gly Gln Gln Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly
364 1           5           10           15
367 Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Ser Gly Pro Gly Ser
368     20           25           30
371 Ala Ala Ala Ala Ala Ala Ala Ala Ala
372     35           40
375 <210> SEQ ID NO: 13
376 <211> LENGTH: 42
377 <212> TYPE: PRT
378 <213> ORGANISM: Artificial Sequence
380 <220> FEATURE:
381 <223> OTHER INFORMATION: One of the repeat sequences representing spider silk analog
382     protein DP-2
385 <220> FEATURE:
386 <221> NAME/KEY: MISC_FEATURE
387 <222> LOCATION: (39)..(42)
388 <223> OTHER INFORMATION: The alanine residues at positions 39 to 42 may optionally be

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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 11/28/2005
PATENT APPLICATION: US/10/772,124A TIME: 10:49:31

Input Set : A:\CL2175 Substitute Seq List.18Nov05.txt
Output Set: N:\CRF4\11282005\J772124A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; Xaa Pos. 11 ✓

Seq#:7; Xaa Pos. 11 ✓

Seq#:8; Xaa Pos. 8 ✓

VERIFICATION SUMMARY

DATE: 11/28/2005

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TIME: 10:49:31

Input Set : A:\CL2175 Substitute Seq List.18Nov05.txt

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L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:195 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0

L:250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0

L:277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0